
A5179-1-S
MADE IN USA
VENT SIDE
SIZE 18X30 IN
TYPE CV BI
MATERIAL 316 FEP
MIN. .50 PSIG@ 72°F
MAX. 1.50 PSIG@ 72°F
TORQ 25.0 FTLB
Fike
WWW.FIKE.COM
REORDER BY LOT 1950426


MADE IN USA
VENT SIDE
SIZE 24X36 IN
TYPE CV BI
MATERIAL 316 FEP
MIN. .25 PSIG@ 72°F
MAX. .75 PSIG@ 72°F
TORQ 25.0 FTLB
00010149
Fike
WWW.FIKE.COM
REORDER BY LOT 2005635

INSTALLATION AND MAINTENANCE INSTRUCTIONS
Explosion Vents

06-308-1

WARNING

- Read these instructions carefully and completely before attempting to unpack, install or service the explosion vent.
- Handle the explosion vent with extreme care. DO NOT bend, poke, or in any way distort the explosion vent.
- Do not locate vent assembly where personnel are exposed to the vent or the area above or in front of the vent, as they may be injured by the release of pressure, flame, noise, particles, and/or process material.
- Locate the explosion vent so that the discharge does not ignite other combustibles, resulting in an ensuing fire or secondary explosion.
- Interfacing equipment and/or machinery must also be protected.
- Flow arrows on round explosion vent tags, or explosion vent tag for square and rectangular vents must be directed to the atmospheric side of the process. Provisions shall be made to prevent personnel from standing or walking on vents, as they risk falling through.
- The vent opening is to be left free and clear. Nothing, i.e. goods or products, is allowed to obstruct the vent area as this will decrease vent efficiency.
- Install the enclosed DANGER sign in a conspicuous location near the zone of potential danger.

GENERAL

An explosion vent is a pressure relief device, designed to give an instantaneous opening at a predetermined pressure. Its purpose is to protect the equipment from excessive pressures caused by dust or gas deflagrations.

INSPECTION/PREPARATION

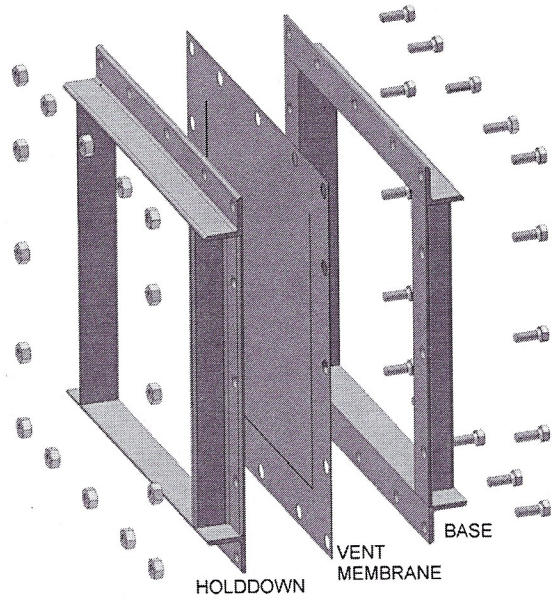
WARNING: Always handle the explosion vent with extreme caution. Handle the explosion vent by its edges only. Damage to the functional area (center) or seat area of the explosion vent may adversely affect the performance of the explosion vent. Read the explosion vent tag completely before installing to confirm that the size and type are correct for your system.

1. Carefully remove the explosion vent from its packaging container.
2. Inspect the explosion vent for damage.
3. If foreign material is present, carefully clean the explosion vent with a solvent that is compatible with your media.
4. Two personnel are recommended for handling of all vents larger than 24" x 30" (600 x 1000 mm) (rectangular) and 30" (800 mm) (round) or larger.
5. CV-SF vents require vent frames with back-up bars to properly function (consult Fike for back-up bar design requirements).

CAUTION: The CV-SF vent frame may prohibit bag filters/cages to pass through the vent opening, thereby limiting the effectiveness of the venting process. Consult Fike.

INSTALLATION – OPEN DISCHARGE

WARNING: The vent opening should be left free and clear. Do not insulate any part of the explosion vent or frame without consulting Fike.



IMPORTANT: When explosion vents are installed horizontally, the use of drainage/weep holes in the holddown frame is required.

1. Use base/inlet of explosion vent frame as a template to indicate placement of explosion vent on the vessel or duct to be protected.
2. Cut the vessel or duct opening to the marked size. The marked size should match the size identified on the vent tag.
3. Weld or bolt the inlet angle frame to the vessel or duct.

IMPORTANT: The explosion vent frame must be installed such that the seat area is flat and bolt holes remain perpendicular (square and rectangular vent frames) or circular (round vent frames).

4. If sealing is a particular concern due to the nature of the process, apply a process compatible silicone sealant or gasket to provide seal between explosion vent and inlet frame.
5. If using a gasket, select a gasket material that is compatible with the process, with a suggested thickness of 1/16" (1.5 mm). The gasket is to have the same inside diameter and outside diameter as the explosion vent frame. Gaskets may or may not be included with the selected explosion vent; consult Fike for details.
6. Install the explosion vent and outlet flange aligning the bolt holes. DO NOT force the explosion vent hole alignment.
7. Apply light oil to the threads and install the nuts and bolts hand tight.
8. Torque each bolt to the value identified on the explosion vent tag.

CAUTION: The torque values should not be exceeded as this may cause failure of the bolt and/or damage to the vent.

INSTALLATION – BETWEEN PIPE FLANGES

WARNING: The vent opening should be left free and clear. Do not insulate any part of the explosion vent or frame without consulting Fike.

1. Install gaskets on both sides of the explosion vent. Select a gasket material that is compatible with the process, with a suggested thickness of 1/16" (1.5 mm). Gaskets may or may not be included with the selected explosion vent; consult Fike for details.
2. Install the explosion vent together with the upstream and downstream gaskets centered between the pipe flanges and aligned with the bolt holes. DO NOT force the explosion vent hole alignment.
3. Confirm the fasteners to be used are of the correct quantity and thread size for the companion flanges.

CAUTION: Clean, new fasteners are recommended. Fasteners showing signs of damage, corrosion, pitting or galling should not be used.

4. Apply light oil to the threads and install the nuts and bolts hand tight.
5. Torque each bolt to the value identified on the explosion vent tag in a crisscross pattern, applying the torque in 25% increments.
6. After the recommended torque has been reached, perform a final tightening in a clockwise bolt-to-bolt pattern to ensure all fasteners have equal loading.

CAUTION: The torque values should not be exceeded as this may cause failure of the bolt and/or damage to the vent.

INSTALLATION – WITH FLAMQUENCH II SQ (FQIISQ)

For additional information, refer to FQIISQ installation instructions, E06-085.

WARNING: The vent opening should be left free and clear. Do not insulate any part of the explosion vent or frame without consulting Fike.

1. Use base/inlet of explosion vent frame as a template to indicate placement of explosion vent on the vessel or duct to be protected. Cut the vessel or duct opening to the marked size. The marked size should match the size identified on the vent tag.

IMPORTANT: The FQIISQ uses an alignment hole feature to ensure proper orientation of the hinge of the explosion vent. The alignment hole must be included on the mounting frame so the explosion vent and FQIISQ can be mounted in only the prescribed orientation. Consult factory for FQIISQ bolting pattern.

2. Weld or bolt the inlet angle frame to the vessel or duct.

IMPORTANT: The explosion vent frame must be installed such that the seat area is flat and bolt holes remain perpendicular (square and rectangular vent frames).

3. Install gaskets on both sides of the explosion vent. Select a gasket material that is compatible with the process, with a suggested thickness of 1/16" (1.5 mm). The gasket is to have the same inside diameter and outside diameter as the explosion vent frame. Gaskets may or may not be included with the selected explosion vent. Consult Fike for details.
4. Install the explosion vent and outlet flange aligning the bolt holes. DO NOT force the explosion vent hole alignment.
5. Apply light oil to the threads and install the nuts and bolts hand tight.
6. Torque each bolt to the value identified on the explosion vent tag.

CAUTION: The torque values should not be exceeded as this may cause failure of the bolt and/or damage to the vent.

BURST INDICATOR

The explosion vents can have as an option an integrated electric burst indicator designed for intrinsically safe service. Refer to Burst Indicator Instructions / Drawing for electrical and dimensional specifications.

CAUTION: Unacceptably high voltage or currents will permanently damage the electrical system and the use of a non-approved intrinsically safe power supply may even be the eventual ignition source of a dust or gas explosion. All burst indicators must be installed in an intrinsically safe circuit which conforms to the applicable national standard.

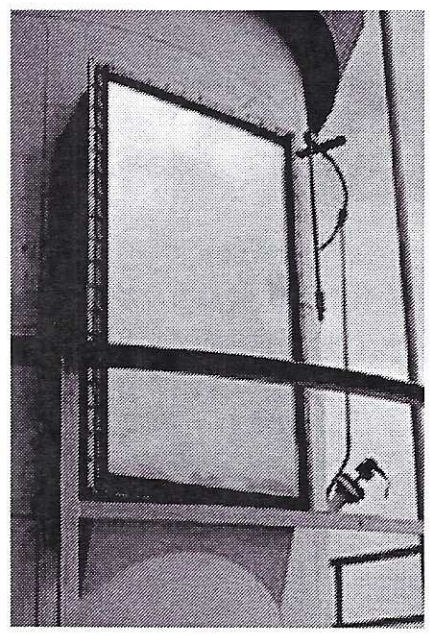
WARNING: Do not bend the electrical cable at any angle at a distance of less than 8 inch (20cm) from the mechanical bracing part and do not lift the explosion vent by the electrical cable, as this may damage the electrical circuit.

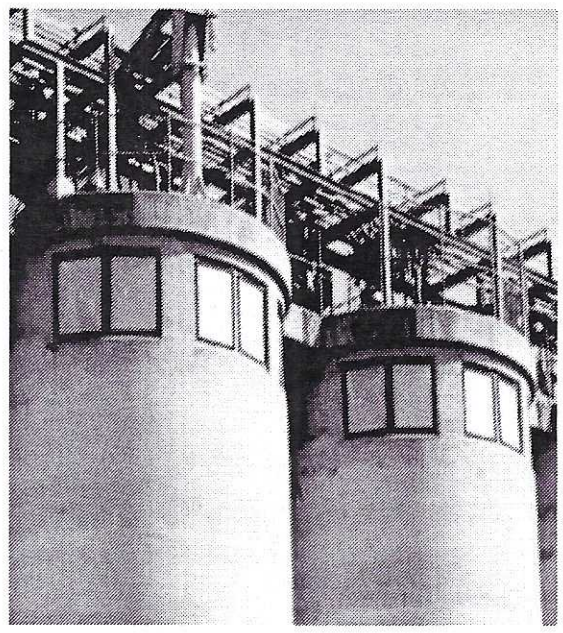
WARNING: The maximum torque values as mentioned on the nameplate must not be exceeded as this will permanently damage the electrical circuit.

MAINTENANCE

The explosion vent is maintenance-free due to its basic design and concept. Periodic visual inspections should be performed in accordance to the operating parameters and severity of service. All operational system parameters should be observed as a standard maintenance practice. The explosion vent must be replaced if they appear damaged, corroded, or leaking.

NOTE: Severe service is defined as rapid changes in pressure, high pressure, high temperature, or corrosive process.





P/N 06-308-1-8 November, 2016 Specifications are subject to change without notice.

Fike®

Form No. TC1001

TERMS AND CONDITION OF SALE, LIMITED WARRANTY AND PURCHASER'S EXCLUSIVE REMEDY

LIMITED WARRANTY

1. Because of the many and varied circumstances and extreme conditions under which Fike's products are used, and because Fike has no control over this actual use, Fike makes no warranties which extend beyond the express provisions herein. FIKE MAKES NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS. Fike makes no express warranties beyond the following provisions, which only apply to the original purchaser.
2. Fike only warrants to the original purchaser as follows: When the products and their component parts are properly installed and maintained, and if the product has not been modified or tampered with, then only the products actually manufactured by Fike shall be free from defects in material and workmanship only for a period of one year from shipment by Fike for all products except certain qualified Fike Fire Suppression Systems which shall be free of said defects for a period of sixty (60) months (see additional details for qualifications). The original manufacturers' warranties apply to products and components not manufactured by Fike.

NON-ASSIGNABILITY OF WARRANTY

3. The warranty as set forth in these terms and conditions may not be assigned, transferred, sold, or alienated in any other way and extends only to the original purchaser.

PURCHASER'S EXCLUSIVE REMEDY

4. The original purchaser's sole and exclusive remedy, unless varied by written agreement with Fike, is that Fike will, at Fike's option, repair or replace any defective part which is returned to Fike within ninety (90) days of discovery of the defect.

DISCLAIMER OF CONSEQUENTIAL DAMAGES

5. In no event shall Fike be liable for consequential damages, including but not limited to damages for loss of use, damages for lost profits, and damages for resulting harm to property other than the Fike assemblies and their component parts.

TERMS

6. **U.S EXPORT LAW**: Fike Corporation (Seller's) products are subject to the export administration and control laws and regulations of the U.S. Government. The Buyer agrees to comply fully with such laws and regulations in the export, resale or disposition of products, and will not directly or indirectly export the products and related technical data in violation of Export Administration regulations of the U.S. Department of Commerce and other applicable laws. The Buyer further agrees not to export, re-export, divert or transfer the products:
   - Into, or to a national or resident of any country to which the United States has embargoed goods,
   - Or to anyone included in the U.S. government List of Specially Designated Nationals, the Table of Denial Orders, the Entity List,
   - Or to anyone involved in the manufacturing and proliferation of weapons in violation of U.S. applicable laws.
   - By buying and/or using the products the Buyer is representing and warranting that it is not located in, or under the control of, or a national resident of, any such country, or on any such lists, or involved in any such activity.

7. **PRICES** – Prices as quoted by Fike are based on current costs of labor and material, and are subject to Fike's adjustment to those prices in effect at time of shipment. On sales made subject to freight allowances, such allowances shall be limited to actual weight, and in the event of any increase or decrease in freight rates a corresponding charge or credit shall be made. All taxes presently or hereafter imposed on the manufacture, sale, or delivery of any Fike products ordered, including any increase of such taxes, shall be charged to the purchaser in addition to the prices herein set forth in Fike's quotations.
8. **QUOTATIONS** – Fike's quotations are not offers subject to the purchaser's acceptance, but are information upon which the purchaser may base his purchase order. Fike's quotations automatically expire thirty (30) days from the date made, unless otherwise expressly provided for in writing by Fike.
9. **TERMS** – Unless agreed to in writing, the terms of all shipments are thirty (30) days, NET, FCA Factory. Interest at the lawful maximum rate will be charged on all past due items. In the event Fike retains an attorney to collect past due accounts, purchaser shall be liable for all reasonable attorney fees and costs.
10. **MINIMUM BILLING** – Fike has a minimum charge of $100.00 for all orders.
11. **ORDERS** – All purchase orders must be finally accepted by Fike, to be binding. All contracts and orders are subject to Fike's credit approval and to Fike's written acceptance. Fike may at any time alter or suspend credit, refuse shipment or cancel unfilled orders, when – in Fike's opinion – the financial condition of the purchaser warrants or when the purchaser is delinquent in any payment.
12. **SHIPPING AND DELIVERY SCHEDULES** – Shipment and delivery dates are estimates only, are based on current conditions and Fike's ability to secure labor, materials and parts, and – where applicable – are estimated from the date approved shop drawings are received from purchaser. Delivery is subject to any and all requisitions, priorities, allocations, restrictions, or controls now or hereafter established by any governmental entity. There shall be no penalty to Fike for delay without Fike's written agreement. Fike shall not be liable for any delay in delivery nor for failure to complete any order if such a delay or failure is due to fire, strikes, or other labor troubles, accidents, transportation delays, shortages of material or machinery, government action, or any other cause beyond the control of Fike, and – in the event of any such occurrences – Fike may, at its election, cancel this order or any part thereof.
13. **CANCELLATION** – If orders accepted by Fike are canceled by the purchaser, the purchaser shall pay all costs, expenses, losses and damages sustained by Fike in connection with such termination, including administrative and engineering expense. In addition, the purchaser agrees to pay a cancellation charge.
14. **RETURN OF MERCHANDISE** – No Fike products may be returned to Fike without Fike's prior written consent and without Fike's shipping instructions.
15. **SHORTAGES OR DAMAGE** – The purchaser's claims for shortages in deliveries must be made in writing within ten (10) days after receipt of shipment. Loss or damage to any Fike product in transit is the sole responsibility of the carrier.
16. **PATENT INFRINGEMENT** – If the purchaser's drawings or specifications infringe upon a patent or trademark, Fike will in no way be responsible for any claims or damages resulting from such infringement.

Fike®

Form No. TC1001 July, 2010 Specifications are subject to change without notice.

704 S.W. 10th Street · P.O. Box 610 · Blue Springs, Missouri 64013-0610 U.S.A. · (816) 229-3405 · www.fike.com

INSTALLATION AND MAINTENANCE INSTRUCTIONS

Integrated Burst Indicator (BI)
For Explosion Vents and AD-Series Rupture Discs

06-258-1

DESCRIPTION

The Fike Integrated Burst Indicator (BI) is a normally closed circuit that can carry a low energy electrical signal. During burst, the indicator is physically broken causing an open condition in the indication circuit. This open condition can then be detected by process control equipment.

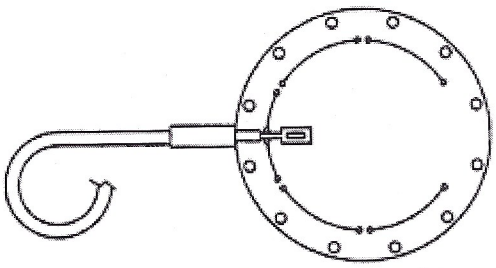
The Integrated Burst Indicator is intrinsically safe for Division 1, Class I, II, III, Groups A, B, C, D, E, F and G when connected through a listed safety barrier (CSA, FM, UL) with entity parameters U_i = 28.4 V, P_i = 0.615 W, I_i = 93 mA, L_i = 5.6 µH, C_i=1.8 nF.

Fike CSA approved intrinsically safe barriers:

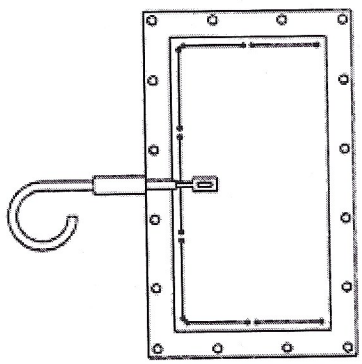
02-16086	Safety Barrier
02-9884	Switching Repeater
02-12110	Isolating Switch Amplifier
02-13775	Isolating Switch Amplifier

CAUTION

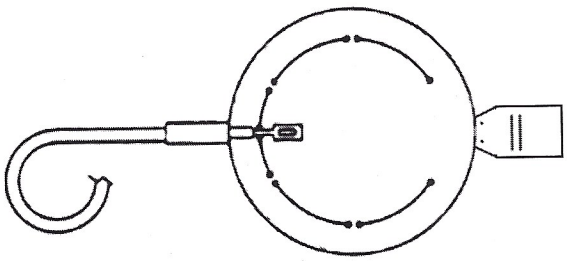
Exceeding the maximum voltage, current, or temperature values shown can cause permanent damage to the Burst Indicator circuit.



Explosion Vent with Burst Indicator (Round)



Explosion Vent with Burst Indicator (Rectangular)



Rupture Disc with Burst Indicator

INITIAL INSPECTION

The Integrated Burst Indicator was thoroughly inspected before shipment and found to be free of mechanical and electrical defects. As soon as the assembly is unpacked, inspect it thoroughly for any damage that may have occurred in transit. Save all packing material until the inspection is completed. If damage is found, notify Fike Corporation, Customer Service (816) 229-3405.

INSTALLATION

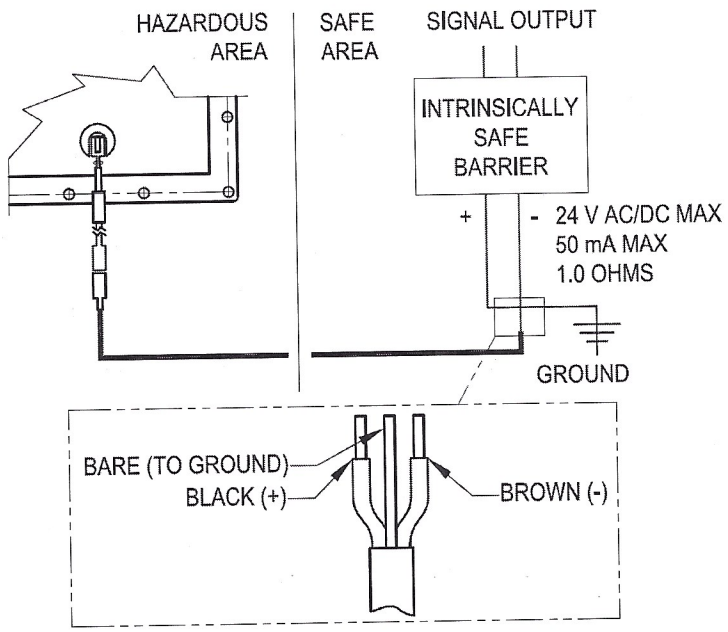
Install the rupture disc or vent in accordance with the instructions provided. Install the disc/vent with the raised retaining tab on the downstream side. Torque evenly to the recommended torque value given in the disc/vent instructions or on the tag. Plug in the lead cable to the appropriate connection.

CAUTION

- Use care during installation not to bend the indicator lead support. Sharp or extreme bends in the support area may damage the indicator.
- Use care during installation to not pull, tug, or otherwise stretch the Kapton® circuit. Stretching the circuit may damage the indicator.
- Before installing, ensure the vent frame is free of burrs and sharp edges which may damage the indicator.
- Excessive torque could damage the Integrated Burst Indicator circuit.

WIRING

The Integrated Burst Indicator acts like a normally closed switch. Indication occurs when the circuit is broken (open). Do not exceed current or voltage limits or permanent damage to the indicator may occur.



ENVIRONMENT RATING
CSA Listed Div. I Class I, II, III, Groups A, B, C, D, E, F and G;

REPLACEMENT
Follow the same procedure as installation. Unplug the lead cable and discard old disc/vent. Install disc/vent per instructions and plug in lead cable D3513-115-X.

MAINTENANCE
The Integrated Burst Indicator is maintenance-free. If the circuit becomes open for any reason, the entire assembly must be replaced.

CERTIFICATION FOR EXPLOSION VENTS AND AD-SERIES RUPTURE DISCS
Standards:
IEC 60079-0 : 2011
IEC 60079-11 : 2011
Reference of IECEx Certificate:
IECEx CSA 17.0022X
Protection marking:
Ex ia IIB T4 Ga
Ex ia IIIC T135°C Da

704 SW 10th Street · P.O. Box 610 · Blue Springs, Missouri 64013-0610 U.S.A. · (816) 229-3405 · www.fike.com

P/N 06-258-1-8 November 2017 Specifications are subject to change without notice.